TENNESSEE

Science and Engineering Profile

	U.S.	Rank		Tennessee	U.S.	Rank
7,145	430,332	20	Total R&D performance, 1993 (millions)	\$1,214	\$161,427	27
1,382	81,293	17	Industry R&D, 1993 (millions)	\$792	\$117,622	26
330	25,409	24	Academic R&D, 1993 (millions)	\$278	\$19,489	25
29%	24%		of which, in life sciences	59%	55%	
26%	22%		in engineering	18%	16%	
19%	13%		in physical sciences	8%	11%	
			Higher education current-fund			
549	34,394	21	expenditures, 1993 (millions)	\$3,002	\$163,994	19
			Number of SBIR awards, 1990-93	136	13,995	24
7,067	438,128	20	Patents issued to state residents, 1994	591	56,039	23
5,175	260,341	17	Gross state product, 1992 (billions)	\$108.9	\$5,994.1	20
2,665	131,013	19	of which, agriculture	2%	2%	
			manufacturing, mining, construction	28%	23%	
\$19,482	\$21,809	37	transportation, communication, utilities	8%	9%	
			wholesale and retail trade	18%	16%	
			finance, insurance, real estate	14%	18%	
\$25,056	\$1,284,896	17	services	18%	20%	
\$674	\$65,394	21	government	12%	12%	
	1,382 330 29% 26% 19% 549 7,067 5,175 2,665 \$19,482	1,382 81,293 330 25,409 29% 24% 26% 22% 19% 13% 549 34,394 7,067 438,128 5,175 260,341 2,665 131,013 \$19,482 \$21,809 \$25,056 \$1,284,896	1,382 81,293 17 330 25,409 24 29% 24% 22% 19% 13% 21 7,067 438,128 20 5,175 260,341 17 2,665 131,013 19 \$19,482 \$21,809 37 \$25,056 \$1,284,896 17	1,382 81,293 17 Industry R&D, 1993 (millions) 330 25,409 24 Academic R&D, 1993 (millions) 29% 24% of which, in life sciences 26% 22% in engineering 19% 13% Higher education current-fund 549 34,394 21 Number of SBIR awards, 1990-93 Patents issued to state residents, 1994 5,175 260,341 17 2,665 131,013 19 Gross state product, 1992 (billions) of which, agriculture manufacturing, mining, construction transportation, communication, utilities wholesale and retail trade finance, insurance, real estate \$25,056 \$1,284,896 17	1,382 81,293 17 Industry R&D, 1993 (millions) \$792 330 25,409 24 Academic R&D, 1993 (millions) \$278 29% 24% of which, in life sciences 59% 26% 22% in engineering 18% 19% 13% Higher education current-fund expenditures, 1993 (millions) \$3,002 Number of SBIR awards, 1990-93 136 7,067 438,128 20 Patents issued to state residents, 1994 591 5,175 260,341 17 Gross state product, 1992 (billions) \$108.9 2,665 131,013 19 of which, agriculture 2% \$19,482 \$21,809 37 transportation, communication, utilities 8% wholesale and retail trade finance, insurance, real estate 14% \$25,056 \$1,284,896 17 services 18%	1,382 81,293 17 Industry R&D, 1993 (millions) \$792 \$117,622 330 25,409 24 Academic R&D, 1993 (millions) \$278 \$19,489 29% 24% of which, in life sciences 59% 55% 26% 22% in engineering 18% 16% 19% 13% Higher education current-fund expenditures, 1993 (millions) \$3,002 \$163,994 Number of SBIR awards, 1990-93 136 13,995 7,067 438,128 20 Academic R&D, 1993 (millions) \$3,002 \$163,994 Number of SBIR awards, 1990-93 136 13,995 56,039 5,175 260,341 17 Gross state product, 1992 (billions) of which, agriculture manufacturing, mining, construction transportation, communication, utilities wholesale and retail trade finance, insurance, real estate services 8% 9% \$25,056 \$1,284,896 17 services 18% 20%

Rankings and totals are based on data for the 50 States and D.C.

Federal Obligations for Research and Development in Tennessee by Agency and Performer: Fiscal Year 1993

[Thousands of dollars]

	Total	Federal intramural	All FFRDCs	Industrial firms	Universities & colleges	Other nonprofits	State & local government	State rank
Total, all agencies	674,420	86,547	328,167	51,224	160,733	45,574	2,175	21
Department of Agriculture	8,909	295	0	0	8,492	52	70	39
Department of Commerce	3,015	2,963	16	0	0	0	36	26
Department of Defense	120,217	68,424	25,556	13,322	10,841	2,074	0	27
Department of Energy	343,567	6,663	296,137	28,765	12,002	0	0	6
Dept. of Health & Human Services	134,057	382	1,632	599	111,449	19,565	430	20
Department of the Interior	5,361	3,949	0	180	1,192	0	40	36
Department of Transportation	6,839	51	4,373	0	816	0	1,599	19
Environmental Protection Agency	1,176	0	0	697	479	0	0	32
Nat'l Aeronautics & Space Admin.	39,779	3,669	0	7,561	4,761	23,788	0	14
National Science Foundation	11,500	151	453	100	10,701	95	0	31
State rank	21	25	5	29	22	13	31	

Federal R&D obligations are as reported by funding agencies.

FFRDC = federally funded research and development center

SBIR = small business innovation research

na = not applicable